

Patent claims

1. Process for shifting sour gas portions from natural gas (1) to sour gas separation unit (22) with free capacities, **characterised in that**
 - a portion of sour gas is withdrawn from first natural gas stream (3) with a sour gas content,
 - sour gas (20) removed from the first natural gas stream is sent to a further sour gas separation unit (22), and
 - the feed operation is effected in such a manner that the sour gas removed from the first natural gas stream (20) is mixed with at least one 2nd natural gas stream (21) and that this mixture is piped to at least one more sour gas separation unit (22).
2. Process in accordance with the Claim 1,
characterised in that the separation of the sour gas contained in the first natural gas stream (3) is effected by absorption (4) as follows:
 - The sour gas portion to be separated is removed from the first natural gas stream (3), using a chemically active adsorbent (5);
 - laden absorbent (11) is recycled to the head of desorption unit (15);
 - the sour gas desorbed by desorption unit (15) leaves this unit and is admixed to a second natural gas stream (21).
3. Process according to Claim 2,
characterised in that a natural gas stream (16) that is at least partly purified is fed as stripping gas to the bottom of desorption unit (15), the stripping gas and the desorbed sour gas (20) being jointly admixed to second natural gas stream (21) and desorption unit (15) being designed as stripping column.
4. Process according to Claim 3,
characterised in that desorption unit (15) can be operated at a pressure level that permits the mixture of desorbed sour gas and stripping gas (20) to be added without compression to natural gas stream (21) which is piped to sour gas separation unit (22) with a free capacity for sour gas separation.

5. Process according to Claim 4,
characterised in that laden absorbent (11) is heated prior to entering sour gas absorption unit (15).
6. Process according to Claim 2,
characterised in that laden absorbent (11) is flashed in desorption unit (15) which in this particular case would be designed as flash vessel.
7. Process according to Claim 6,
characterised in that laden absorbent (11) is heated prior to entering desorption unit (15), desorption unit (15) being operated at a pressure level that permits flashed sour gas (20) to be added without compression to natural gas stream (21) which is piped to sour gas separation unit (22) with a free capacity for sour gas separation.